



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/726,064	12/02/2003	Alan Andresen	354458004US1	2576
56703	7590	10/31/2005	EXAMINER	
ROBERT D. VARITZ, P.C. 4915 SE 33RD PLACE PORTLAND, OR 97202			FAULCON JR, LENWOOD	
			ART UNIT	PAPER NUMBER
			3762	

DATE MAILED: 10/31/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/726,064	<b>Applicant(s)</b> ANDRESEN ET AL.	
	<b>Examiner</b> Lenwood Faulcon, Jr.	<b>Art Unit</b> 3762	

**– The MAILING DATE of this communication appears on the cover sheet with the correspondence address –**  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 11 August 2005.
- 2a) ☐ This action is FINAL.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Response to Arguments***

1. Applicant's arguments, see page 3 lines 12-20, filed August 11, 2005, with respect to the rejection(s) of claim(s) 1 under 35 USC § 102 have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Dingwall et al. (U.S. Patent No. 5,003,983) and in view of Lander et al. (U.S. Patent No. 5,891,047), and further in view of Fischell et al. (U.S. Patent No. 6,112,116).

Further, Examiner finds Applicant's arguments not persuasive with respect to Dingwall et al.'s teaching of a pathologic threshold step, as set forth in the Office Action of February 2, 2005. Examiner takes the position that Dingwall et al. teaches of using a first threshold step in analyzing EKG data for benign ST data (Figure 4 (a)) and also teaches of a second threshold step which is a pathological threshold (Figure 4 (b) and (c)). Examiner takes the position that Dingwall et al. compares a measured ST segment with a normal stored ST segment to determine if the condition of the patient is normal (col. 4 lines 9-12), which is interpreted to be the first threshold step. Further, Examiner takes the position that the if Dingwall et al. detects a deviation in the measured ST segment it compares the measured ST segment with both stored depressed and elevated ST segments (col. 1 lines 65-69), which is interpreted to be the second threshold step (pathological threshold).

***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Dingwall et al. (U.S. Patent No. 5,003,983) in view of Lander et al. (U.S. Patent No. 5,891,047), and further in view of Fischell et al. (U.S. Patent No. 6,112,116).

Dingwall et al. teaches of a system for detecting myocardial ischemia, but does not specifically teach of detecting myocardial infarction.

Lander et al. teaches of a system for detecting abnormal activation of the heart as an indicator of myocardial ischemia or myocardial infarction (col. 1 lines 42-44).

Fischell et al. teaches of a system for detecting and treating myocardial infarctions, by noting ST segment deviation (col. 1 lines 49-52).

It would have been obvious to one having ordinary skill in the art at the time of the invention to combine the teachings of Dingwall et al. with the teachings of Fischell et al. and Lander et al. Dingwall et al., Fischell et al. and Lander et al. all teach of systems for detecting abnormal cardiac activity, and thus teach of analogous arts. It would have been obvious to one having ordinary skill in the art at the time of the invention to modify the system as taught by Dingwall et al. to include myocardial infarction detection in addition to the detection of myocardial ischemia as taught by Lander et al., since myocardial infarctions are closely related to myocardial ischemia as noted in Applicant's

Art Unit: 3762

arguments (page 3 lines 13-18) and it would provide enhanced safety measures.

Further, it would have been obvious to one having ordinary skill in the art at the time of the invention to modify the system as taught by Dingwall et al. to also detect myocardial infarctions by noting ST segment deviation as taught by Fischell et al., since it is commonly known in the art that myocardial infarction can be detected by noting ST segment deviation as taught by Fischell et al.

Therefore it would have been obvious to one having ordinary skill in the art at the time of the invention to combine the teachings of Dingwall et al. with the teachings of Lander et al. and Fischell et al. to have the limitations of claim 1.

### ***Conclusion***

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Kaneko et al. (U.S. Patent No. 4,896,677), Luczyk (U.S. Patent No. 5,456,261). Karlsson et al. (U.S. Patent No. 6,038,469), Stadler et al. (U.S. Patent No. 6,115,628), Fischell et al. (U.S. Patent No. 6,272,379), Anzellini et al. (U.S. Patent No. 6,339,720).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lenwood Faulcon, Jr. whose telephone number is 571-272-6090. The examiner can normally be reached on Monday-Thursday from 9 to 5 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Angela D. Sykes, can be reached on 571-272-4955. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 3762

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Lenwood Faulcon, Jr.



George Manuel

Primary Examiner